

TOP SECRET

OUT57542

TOP SECRET 132211Z

1966 JAN 13 22 34Z

25X1

SUBJ: MISSION 1027 PHOTOGRAPHIC EVALUATION INTERIM REPORT (PEIR)

25X1

# 1. NUMERICAL SUMMARY

MSN NO AND DATES: 1027-1, 9-10 DEC 65;  
 1027-2, 10-11 DEC 65,  
 (NO COVERAGE)

LAUNCH DATE: 9 DEC 1965

VEHICLE NO: 1621

CAMERA SYSTEM: JX-27

PAN CAMERA NOS: FORWARD LOOKING (MASTER) 164;  
 AFT LOOKING (SLAVE) 163

MSN 1027-1 S/I NO: D71/87/87

MSN 1027-2 S/I NO: D68/74/83

RECOVERY REVS: D17 AND D33

# 2. CAMERA SETTINGS:

FORWARD LOOKING: 0.250 INCH SLIT,  
 WRATTEN 25 FILTER

AFT LOOKING: 0.175 INCH SLIT,  
 WRATTEN 21 FILTER

14 JAN 1966

	CS
	ADSM
	SEC DR
	P. A. DR
	CCD
	IPD
	PD
	PCD
	PCD-ICB
3/4	TID
	IAD
	PAG
	DIAMETER
	SPAD
	ICAD
	ICAD

Declassification Review by  
 NGA/DoD

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### 3. PERFORMANCE SUMMARY

THE IMAGE QUALITY OF THE PHOTOGRAPHY PRODUCED WAS GOOD AND PROBABLY COMPARABLE WITH MISSION 1026. BECAUSE OF CONTROL PROBLEMS, A MAXIMUM AMOUNT OF COVERAGE WAS ORDERED FOR THE ONE DAY OF OPERATION WITH THE RESULT THAT THERE WAS ONLY A SMALL AMOUNT OF COVERAGE SUITABLE FOR QUALITY EVALUATION. THE SYSTEM EXPERIENCED HIGH ATTITUDE RATES BECAUSE OF A CONTROL GAS VALVE FAILURE, BUT THE PAN CAMERA IMAGERY SHOWED NO DETECTABLE DEGRADATION. HOWEVER, NO COVERAGE OF TRI-BAR GROUND TARGET DISPLAYS WAS OBTAINED; HENCE, NO QUALITY MEASUREMENTS BY THIS METHOD WERE POSSIBLE.

### 4. ANOMALIES

ANOMALIES INCLUDING THOSE REPORTED IN THE  MESSAGE (REF A) WERE REVIEWED.

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25X1'

A. DENSITY OF THE SLAVE OUTPUT H. O. FIDUCIAL AT THE DATA BLOCK EDGE VARIED IN INTENSITY THROUGHOUT THE MISSION.

CAUSE: FILM OR EMULSION PARTICLES INTERMITTENTLY OBSTRUCT LIGHT

ACTION: NONE INDICATED. EMULSION PARTICLES FROM RAIL SCRATCHES IS AN INSTRUMENT CHARACTERISTIC, BUT EXPERIENCE HAS SHOWN IT TO BE A MINOR HAZARD.

#### B. LIGHT LEAKS

CAUSE: ALL BUT ONE OF THE LIGHT LEAKS ARE TRACED TO TWO SOURCES: (1) FELT SEALS AT THE INSTRUMENT DRUMS, AND (2) LAMINATED STRIPS AT THE REAR OF THE INSTRUMENT DRUMS. A THIRD FOG SOURCE IS INDICATED BUT THE LOCATION IS NOT KNOWN.

ACTION: (1) SUPPLEMENTARY SEALS FOR THE DRUM ARE UNDER

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INVESTIGATION.

(2) A CORRECTIVE SEAL TO THE LAMINATED STRIPS HAS ALREADY BEEN ESTABLISHED. NO ACTION NECESSARY.

(3) THE UNKNOWN THIRD FOG SOURCE WILL BE DETERMINED BY THE CONTRACTORS.

C. ON PASS D05, MASTER PAN CAMERA METERED EIGHT CYCLES BETWEEN SUCCESSIVE S/I CAMERA OPERATIONS INSTEAD OF THE CORRECT SEVEN CYCLES.

CAUSE: SINCE THERE WAS NO MALFUNCTION OF EITHER THE S/I CAMERA ITSELF OR THE RELATED DATA RECORDING ON THE PAN CAMERAS, THE DEFECT APPEARS TO ORIGINATE IN THE STEPPER SWITCH OF THE S/I PROGRAMMER.

ACTION: REVIEW DATA REDUCTION PROCEDURES TO DETERMINE WHETHER A MALFUNCTION HISTORY WILL BE DETECTED.

5. COMMENTS

ALL PROCESSING OF PAN MATERIAL ON THIS MISSION WAS PERFORMED ON THE TRENTON EQUIPMENT SINCE THE YARDLEIGH PROCESSOR WAS BEING UPGRADED. FOR THIS REASON AND ALSO THE SMALL AMOUNT OF COVERAGE AVAILABLE ON THE PRESENT MISSION, THE PROCESSING EXPERIMENTS PROPOSED IN MISSION 1026 PEIR (REF B) WERE NOT CARRIED OUT.

T O P S E C R E T

-END OF MESSAGE-